

TDHEX225 - EN - Technical Data Sheet

EUROSPAN® EAC E1 P5 CE

Recipe: 225

Application: Load-bearing boards for use in humid conditions.

Used as the core board in the following EGGER Products:

- EGGER Protect
- EGGER Peel Clean Xtra



P5-Board manufactured in accordance with EN 312

| General Requirement at dispatch | Test Method | Unit | Thickness range [mm] | | | | |
|--|-------------|-----------|----------------------|----------|----------|----------|----------|
| | | | 6 - 13 | >13 - 20 | >20 - 25 | >25 - 32 | >32 - 40 |
| Thickness tolerance (sanded board) | EN 324-1 | [mm] | ± 0.3 | | | | |
| Length and width tolerance | EN 324-1 | [mm] | ± 5.0 | | | | |
| Squareness tolerance | EN 324-2 | [mm/m] | ≤2.0 | | | | |
| Edge straightness tolerance | EN 324-2 | [mm/m] | ≤1.5 | | | | |
| Moisture content * | EN 322 | [%] | 5 - 13 | | | | |
| Tolerance on the mean density within a board | EN 323 | [%] | ± 10 | | | | |
| Formaldehyde content ** | ISO 12460-5 | [mg/100g] | Class E1 | | | | |

| Mechanical Property | Test Method | Unit | Thickness range [mm] | | | | |
|----------------------------|-------------|----------------------|----------------------|----------|----------|----------|----------|
| | | | 10 - 13 | >13 - 20 | >20 - 25 | >25 - 32 | >32 - 40 |
| Internal Bond | EN 319 | [N/mm ²] | 0.45 | 0.45 | 0.40 | 0.35 | 0.30 |
| Bending Strength | EN 310 | [N/mm ²] | 18 | 16 | 14 | 12 | 10 |
| Modulus of Elasticity | EN 310 | [N/mm ²] | 2550 | 2400 | 2150 | 1900 | 1700 |
| Swelling in thickness, 24h | EN 317 | [%] | 11 | 10 | 10 | 10 | 9 |

| Moisture resistance requirements – Option 1 after cyclic test | | | | | | | |
|---|--------|----------------------|------|------|------|------|------|
| Internal Bond | EN 321 | [N/mm ²] | 0.25 | 0.22 | 0.20 | 0.17 | 0.15 |
| Swelling in thickness | EN 321 | [%] | 12 | 12 | 11 | 10 | 9 |

| Moisture resistance requirements – Option 2 after boil test | | | | | | | |
|---|-----------|----------------------|------|------|------|------|------|
| Internal Bond | EN 1087-1 | [N/mm ²] | 0.15 | 0.14 | 0.12 | 0.11 | 0.10 |

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Application: Load-bearing boards for use in humid conditions.

| Physical properties according to EN 13986 | Unit | Requirement per thickness range [mm] | | | | |
|---|-----------|---|-----------|-----------|----------|----------|
| | | >6-13 | >13-20 | >20-25 | >25-32 | >32-40 |
| Reaction to fire (Density $\geq 600 \text{ kg/m}^3$)*** | | | | | | |
| Without air gap behind the board | | E | D -s2, d0 | D-s2, d0 | D-s2, d0 | D-s2, d0 |
| With closed or open air gap $\leq 22 \text{ mm}$ behind the board | | E | D-s2, d2 | D-s2, d2 | D-s2, d2 | D-s2, d2 |
| With closed air gap $> 22 \text{ mm}$ behind the board | | E | E | D-s2, d0 | D-s2, d0 | D-s2, d0 |
| With open air gap $> 22 \text{ mm}$ behind the board | | E | E | D-s2, d0 | D-s2, d0 | D-s2, d0 |
| Water vapour resistance factors | | μ moist | | μ dry | | |
| Mean density 600 kg/m^3 | | 15 | | 50 | | |
| Mean density 900 kg/m^3 | | 20 | | 50 | | |
| Thermal conductivity | | | | | | |
| Mean density 600 kg/m^3 | [W/(m*K)] | 0.12 | | | | |
| Airborne sound insulation | | | | | | |
| Only valid for the frequency range of 1kHz to 3 kHz and at surface mass $>5 \text{ kg/m}^2$ | [dB] | $R = 13 \times \lg(m_A) + 14$ $(m_A = \text{board surface mass } \text{kg/m}^2)$ | | | | |
| Sound absorption coefficient | | | | | | |
| Frequency range [Hz] | | | | | | |
| 250 to 500 | [-] | 0.10 | | | | |
| 1000 to 2000 | | 0.25 | | | | |
| Biological durability (EN 335-3) | | | | | | |
| (no earth contact , dry $20^\circ\text{C}/65\%$ relative humidity) | | Hazard category 1 | | | | |
| PCP content | [ppm] | < 5 | | | | |

* On delivery

** Formaldehyde content - Class E1:

According to the "Regulation on the Prohibition of Chemicals (ChemVerbotsV)" from October 1993 along with the "Regulation on the classification and external supervision of wood-based panels regarding formaldehyde emission (DIBt – Guideline 100) dated June 1994, un-faced particleboard must not exceed a perforator value (photometric) of $8 \text{ mg HCHO}/100\text{g}$ oven dry board at a moisture content of 6.5 %. The rolling average of EN 120 values over a period of $\frac{1}{2}$ year is max. $6.5 \text{ mg HCHO}/100\text{g}$ panel mass.

Provisional note:

This technical data sheet has been carefully drawn up to the best of our knowledge. We accept no liability for any mistakes, errors in standards or printing errors. In addition, technical modifications can result from the continuous further development, as well as from changes in standards and documents originating from statutory bodies. The contents of this technical leaflet should therefore not be considered as instructions for use or as legally binding.

*** For floorings:

D-s2, d0 = D_{fl}-s1
 E = E_{fl}
 D-s2, d2 = n/a